



Llangattock Green Valleys newsletter

Issue 101
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<http://www.llangattockgreenvalleys.org/>

HYDRO SCHEMES UPDATE:

By Steve Sharp



Image by Penny Hallas

We have experienced a fairly typical Welsh Winter to date, with a mixture of rainy and drier weeks. As a consequence, our five hydro schemes have all generated some decent amounts of electricity and we've only had one minor technical problem in the last few months, which was put right within 48 hours.

Generation was as follows:

	January (kWhs)	Generation to date (kWhs)
Cwm Gu:	8,580	207,650
Nant yr Hafod:	3,290	121,540
Blaen Dyar:	2,610	67,730
Abernant:	3,510	76,750
Cwm Saerbren:	8,700	87,030
Total (5 schemes)	26,670	

Apart from implementing the merger of the two hydro Co-operatives, we've been working to establish Power Purchase Agreements (PPAs) with Co-op Energy, which we expect will give us a higher payment for the electricity we export to The Grid. This has involved a lot of form filling and also operational changes, such as adapting the export meters so that they can be read remotely on a half-hourly basis. Three of our hydro schemes already have operational PPAs and we expect to have the remaining two up and running next month.



CLEARING THE SITE BEFORE SPRING

By Jackie Charlton

We have been doing work which could be called spring cleaning or better phrased as spring clearing. Last month I gave some background on coppicing, which is such a valuable management process for woodlands and creates the right conditions for biodiversity and carbon



capture. Well, this month we have been focusing on clearing rhododendron and brambles. The rhododendron is nasty when it takes over and it had been left to do its ugly work for decades in one spot in our woodland. The flowers are very grand and, in the right place (domestic or show gardens), it's a wonderful plant. Sadly, in a woodland it causes problems for biodiversity and carries diseases which attack English Oak and other plants. Phytophthora ramorum is the plant pathogen that causes ramorum

disease which eventually leads to the death of the plants it infects. It was first identified in the USA in the 1990s, where it caused widespread damage in California and earned the name 'sudden oak death'. The Phytophthora are named from a Greek root meaning 'plant destroyer' (for more information, see <https://www.highlandtitles.com/blog/ramorum-disease/>).

It took ten years to reach the UK, thanks to the rampant and largely uncontrolled international trade in plants. By 2009, it first escaped into the wild, being seen on Bilberry plants in Staffordshire and then later that same year in Japanese larch in Cornwall. In 2010, it was found in Wales.

How *Phytophthora ramorum* spreads

Phytophthora is a water mould. Once it is established in a plant host it spreads by the subsequent production of spores. Two types of spore may be produced on the host's leaves – one involved in dispersal and directly infecting new plants and another that can persist and survive in the environment for some considerable time until conditions are favourable. The water moulds need damp conditions to spread successfully and so it is well suited to the climate in the west of Britain. It can be dispersed by rain splash, wind-driven rain and in ground water as well as being spread through contaminated plant material and soil on tools, boots and vehicles. Our woodland offers the very conditions this mould thrives on and so cutting down the rhododendron might seem harsh but we think we can offer a much better environment for our native trees and plants to survive. I can't wait to see the bluebells this year.

Bramble Clearance

One of our volunteers was desperate to clear the brambles. Now these plants can be very useful in a woodland and provide cover for wildlife, nectar for the bees and fruit for the birds. However, they can also swallow up other plants, scratch our volunteers and make it impossible to see if the toads and frogs have made the most of the wet woodland floor. Last year we had a big batch of tadpoles but they were in a shallow puddle which sadly dried up before they fully developed, even though we watered the puddle regularly. This year we are hoping that Mother Nature will help the frogs' and toads' partnerships move onto the woodland floor where water courses have been cleared of bramble and our movement is safer and free from scratches.

The other benefit we hope to gain here is sight of the beautiful orchids we know started to spread two years ago; last year it was impossible to see them in the bramble growth.





TREE TROLLS

Those very active Llangattock Community Woodlanders have been fast and furious at getting the Tree Trolls out for the spring.

They are having great fun in the woodland and proving hardy 'Woodlanders' in the rain and wind. February was kind to them, just a few showers and it didn't put off the Trolls, either.



BOB'S BEE NOTES ~ FEBRUARY



The poor bees must be confused by the contrast in weather and temperatures they have experienced over this last month. All this variation in conditions is not good for bees and indeed all insects that need stable conditions during what should be a largely dormant period through the winter. Yesterday I found a Queen wasp flying about in the house that had come out of her hibernation and outside a Queen Bumble bee flying in the garden. The snow we experienced a few weeks ago is becoming a normal annual event again, as it was for many decades during the last century. Recently I heard that a record high temperature for February had been broken in Scotland and yesterday the same for Wales. All these things are pointing to a changing situation for ourselves and all the creatures on earth that rely on stable seasons throughout the year.

Well, our bees in Llangattock are enjoying the sunshine and having a chance to clear out their bowels after being confined throughout the very cold spell a few weeks ago. Pollen is pouring into the hives so the Queens will be in lay producing new bees to replace normal winter losses from old age and to replace those that will be dying through exhaustion after this unexpected flurry of activity. Winter bees are designed with a higher level of fat in their system to survive winter by cwtching (Welsh for cuddle!) up tight together in order to trap heat around the Queen and her early brood nest. There isn't the intense activity of foraging at this time of year but the bees will still be taking in food from the fondant we provide.



I am getting reports of hive activity in Wiltshire as well as in South Wales and so far very little in the way of colony losses. It is still very early in the beekeeping season of course but is looking good from what I can see and from what I am hearing from others. The bags containing fondant we leave above the brood nest are being consumed in most hives, so that may also be helping the colonies develop into strong units ready for spring time.

All is looking good for the bees at the present time. Both these pictures were taken in the last few days of February.

Bee Bob



LCW Trustees are justly proud of the commitment and enthusiasm of all our volunteers. We meet regularly every Tuesday and you can find information on where and when we meet on our website www.lcwg.btck.co.uk. If you are interested in environmental management, green wood crafts or bee keeping, do get in touch. Please email Eric Gower eric.gower@gmail.com for a membership form.

What is district heating?

Copenhagen is almost entirely served by district heating schemes, as is around 65% of housing in Denmark as a whole. In the UK, only around 2% of properties are connected to district heating, although it offers opportunities for carbon reduction and benefits to local economies. You can find out more [here](#).



Image: Insulated pipes to connect a new building to University of Warwick's campus-wide combined heat and power system

Generating energy from waste

Lowering consumption and reusing materials are the best ways of reducing the pressure on resources. But what about when that's not possible? This article looks at the different mechanisms of [generating energy from waste](#) and which are the most efficient.



LGV VOLUNTEERS NEEDED PLEASE! CAN YOU HELP?

We are looking for a number of people who would like to get involved at Director and non-Director level. Please get in touch with Andrew Fryer if you would like to explore the ways in which you can help: andrewfryer70@gmail.com. You can meet our Board of Directors [here](#).

Now that we have 5 hydro schemes up and running, we'd also like to get a few more volunteers involved in monitoring the schemes and taking readings. This would only take around an hour or so once every 6-9 weeks. If you are interested in helping, please contact Simon Walter admin@llangattockgreenvalleys.org.

www.llangattockgreenvalleys.org

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